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A SATISFACTORY TREE-TRUNK SCREEN CAGE

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To facilitate the study of codling moth larvae in cocoons at the base of apple tree trunks, the following described tree-trunk cage was devised and built by the writers in 1939 at the Yakima, Wash., laboratory.^{1/} For ease in putting the cage in place and in removing it from the tree, it was made in two parts. Two equal frames, 13" x 13" x 26", were made, and four faces of each frame (ends, top, and one side) were covered with 14-mesh screening (16-mesh screen would have been better) (figs. 1 and 2). Where the half cages came together the material was tongue-and-groove to insure a tight joint. The two half frames were held together very closely by the use of two $1\frac{1}{2}$ " hooks and eyes on each side. The tongue-and-groove pieces in the top center were held rigid by angle braces from underneath, the same as were used in the corners. The top screen was stapled to screen molding, which was then fastened with screws, so that the top could be removed or partly raised if necessary.

The method used to obtain a close fit around the tree was to place the cage in the position desired, then lay a piece of cardboard on top of the screen of the cage and cut it out until a perfect fit was secured. This template was then placed on top of the screen to be cut out for the tree trunk. It was found best to make the cut in the screening a little smaller than the pattern to be sure that the cut was not too large, and then enlarge it as necessary.

A piece of $\frac{3}{4}$ " x $\frac{3}{4}$ " felt was tacked to the tree just below where the screen touched the tree. The felt matting that is ordinarily used on automobile floor boards is satisfactory and much less expensive than the felt used for bearings in motors.

^{1/} Yothers, M. A., and Carlson, F. W. Orchard Observations of the Emergence of Codling Moths from Two-Year-Old Larvae. Jour. Econ. Ent. 34 (1): 109-110. 1941.

After the cage was in place, about 3 nails were driven through the screen and felt to prevent the screen from rising. A good coating of adhesive was finally smeared around the tree at the union of screen, felt, and bark.

The cage was set down in the soil from 3 to 4 inches to help keep out rodents.

List of Materials

Frame

12 pieces clear pine, 3/4" x 1-3/8" x 13" S4S (surfaced 4 sides)
4 pieces clear pine, 3/4" x 1-3/8" x 10" S4S
4 pieces clear pine, 3/4" x 1-3/8" x 26" S4S
16 pieces clear pine, 3/4" x 1-3/8" x 3" S4S

The following 4 items are ripped from 1" x 4" flooring which is tongued on one edge (T.1E) and grooved on one edge (G.1E) to insure a tight union of the two half-cages.

2 pieces 3/4" x 1-5/8" x 13" T.1E. S3S (surfaced 3 sides)
2 pieces 3/4" x 1-5/8" x 13" G.1E. S3S
2 pieces 3/4" x 1-5/8" x 5" T.1E. S3S
2 pieces 3/4" x 1-5/8" x 5" G.1E. S3S

Screen molding

24 pieces 5/16" x 3/4" x 13" screen molding
6 pieces 5/16" x 3/4" x 26" screen molding
4 pieces 5/16" x 3/4" x 6" screen molding

Hardware

6½ feet of 26", 14-mesh galvanized screen
4 1½" hooks and eyes
28 round head wood screws, 1" #5
4 feet of 3/4" x 3/4" cheap felt
Nails, 1-1/8" finish and 5/8" wire brads
Adhesive
Approximate cost, \$1.85

Tree Trunk Screen Cage.

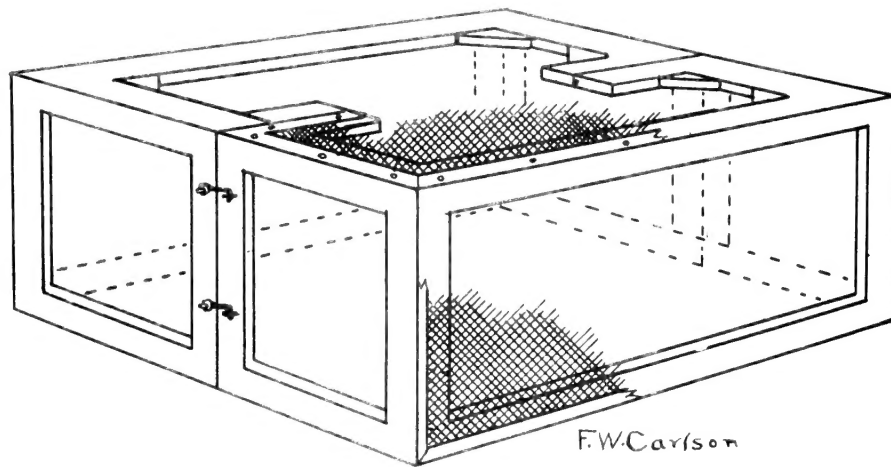


Figure 1.--Tree-trunk screen cage showing details of construction.

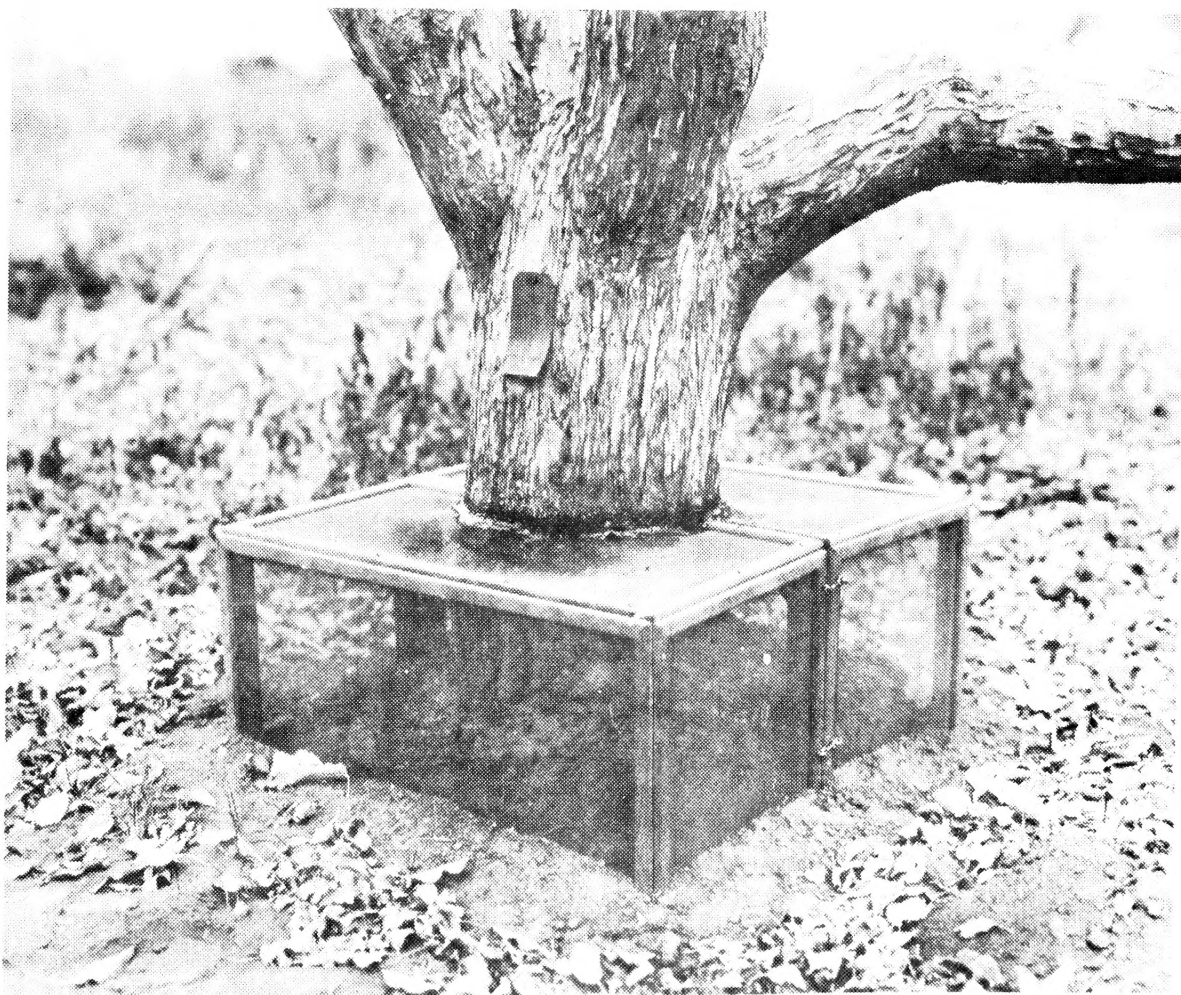


Figure 2.--Tree-trunk screen cage in position about an apple tree trunk.

